Amendments to the Claims

This listing of claims will replace all prior versions and listing of claims in the application.

Listing of Claims:

1. (Canceled)

2. (Currently Amended) An apparatus for displaying preview images to print that outputs user-chosen preview images to print on a display, comprising:

a print preview display unit for performing the steps of:

outputting a page view of a unit page to print within a bounded area as a first-mode preview image;

outputting a composite view of an object image to print within a bounded area as a second-mode preview image, said composite view consisting of a plurality of element pages which are to be printed separately and integrated into a complete print;

outputting an enlarged view of a selected spot on a displayed page to print within a bounded area as a third-mode preview image; and

making the preview images to print of these three modes parallel one another, wherein said preview images are not overlapped with each other on a preview display screen.

3. (Currently Amended) An apparatus for displaying preview images to print that

outputs user-chosen preview images to print on a display, comprising:

a print preview display unit for performing the steps of:

outputting a page view of a unit page to print within a bounded area as a

first-mode preview image;

outputting a composite view of an object image to print within a bounded area

as a second-mode preview image, said composite view consisting of a plurality of

element pages which are to be printed separately and integrated into a complete print;

and

making the preview images to print of these two modes parallel one another,

wherein said preview images are not overlapped with each other on a preview display

screen.

4. (Original) The apparatus for displaying preview images to print according to Claim

2 wherein:

when said print preview display unit is displaying said first-mode and/or

second-mode preview images and third-mode preview image, a spot selected on a

page view and/or a page selected among the element pages is framed so as to be

recognizable as being displayed as said third-mode preview image.

5. (Original) The apparatus for displaying preview images to print according to Claim

2 wherein:

when said print preview display unit is displaying said first-mode and/or said

third-mode preview images and said second-mode preview image, a page and/or a

spot selected on said second-mode preview image are framed so as to be

recognizable as being displayed as said first-mode and/or said third-mode preview

images.

6. (Original) The apparatus for displaying preview images to print according to Claim

2 wherein:

when said print preview display unit outputs said first-mode and second-mode

preview images, an appropriately reduced image is displayed from bitmap data into

which data for printing an object image is converted; whereas, when said print preview

display unit outputs said third-mode preview image, an image of a selected spot is

displayed from bitmap data into which data for printing an object image is converted,

but equally scaled to the image from the data for print.

7. (Original) The apparatus for displaying preview images to print according to Claim

2 wherein:

said print preview display unit takes control action of making said data for

printing an object image accessible to a phase of preview processing exclusively at a

time and generates preview images in phases by orderly accessing said data for

printing an object image under the control.

8. (Currently Amended) The apparatus for displaying preview images to print according to Claim 7 wherein:

said print preview display unit transfers said data for printing an object image into a memory ~~of relatively faster accessibility~~ while taking said control action of making said data for printing an object image accessible to a phase of preview processing exclusively at a time.

9. (Original) The apparatus for displaying preview images to print according to Claim 7 wherein:

said print preview display unit includes a unit for facilitating the access to said data for printing an object image by indirectly indicating the locations of elements of the data while taking said control action of making said data for printing an object image accessible to a phase of preview processing exclusively at a time.

10. (Original) The apparatus for displaying preview images to print according to Claim 2 wherein:

said print preview display unit can accept request by user action that the user selects one of the plurality of page images displayed in said second mode and displays the selected page in said first mode upon accepting the request by user action.

11. (Original) The apparatus for displaying preview images to print according to Claim

2 wherein:

said print preview display unit can accept request by user action that the user

selects one of the plurality of page images displayed in said second mode and sets

whether to print the selected page upon accepting the request by user action.

12. (Withdrawn) An apparatus for displaying preview images to print that outputs

user-chosen preview images to print on a display, comprising:

a unit for showing progress of preview generation by which the progress of

generating a preview image to print is shown in predetermined steps as the preview

images to print are processed for output.

13. (Withdrawn) An apparatus for displaying preview images to print that outputs

user-chosen preview images to print on a display, comprising:

a unit for inputting a command to stop preview, allowing the user to input a

command to stop the processing for outputting the preview images to print, by which

said apparatus aborts generating the preview images to print when the user inputs a

command to stop preview by using the unit for inputting a command to stop preview.

14. (Canceled)

15. (Currently Amended) A method for displaying preview images to print by which

user-chosen preview images to print are output on a display, comprising:

a print preview display process for performing the steps of:

outputting a page view of a unit page to print within a bounded area as a

first-mode preview image;

outputting a composite view of an object image to print within a bounded area

as a second-mode preview image, said composite view consisting of a plurality of

element pages which are to be printed separately and integrated into a complete print;

outputting an enlarged view of a selected spot on a displayed page to print

within a bounded area as a third-mode preview image; and

making the preview images to print of these three modes parallel one another,

wherein said preview images are not overlapped with each other on a preview display

screen.

16. (Currently Amended) A method for displaying preview images to print by which

user-chosen preview images to print are output on a display, comprising:

a print preview display process for performing the steps of:

outputting a page view of a unit page to print within a bounded area as a

first-mode preview image;

outputting a composite view of an object image to print within a bounded area

as a second-mode preview image, said composite view consisting of a plurality of

element pages which are to be printed separately and integrated into a complete print;

and

making the preview images to print of these two modes parallel one another, wherein said preview images are not overlapped with each other on a preview display screen.

17. (Withdrawn) A method for displaying preview images to print by which user-chosen preview images to print are output on a display, comprising:

a process for showing progress of preview generation by which the progress of generating a preview image to print is shown in predetermined steps as the preview images to print are processed for output.

18. (Withdrawn) A method for displaying preview images to print by which user-chosen preview images to print are output on a display, comprising:

a stop process that is activated by a unit for inputting a command to stop preview, allowing the user to input a command to stop the processing for outputting the preview images to print, said stop process wherein generating the preview images to print is aborted when the user inputs a command to s top preview by using the unit for inputting a command to stop preview.

19. (Canceled)

20. (Currently Amended) A computer-readable medium having a program for

displaying preview images to print recorded thereon, said program outputting

user-chosen preview images to print on a display, said computer-readable medium

having computer-executable instructions for implementing a print preview display

function comprising:

outputting a page view of a unit page to print within a bounded area as a

first-mode preview image;

outputting a composite view of an object image to print within a bounded area

as a second-mode preview image, said composite view consisting of a plurality of

element pages which are to be printed separately and integrated into a complete print;

outputting an enlarged view of a selected spot on a displayed page to print

within a bounded area as a third-mode preview image; and

making the preview images to print of these three modes parallel one another,

wherein said preview images are not overlapped with each other on a preview display

screen.

21. (Currently Amended) A computer-readable medium having a program for

displaying preview images to print recorded thereon, said program outputting

user-chosen preview images to print on a display, said computer-readable medium

having computer-executable instructions for implementing a print preview display

function comprising:

outputting a page view of a unit page to print <u>within a bounded area </u>as a

first-mode preview image;

outputting a composite view of an object image to print <u>within a bounded area</u>

as a second-mode preview image, said composite view consisting of a plurality of

element pages which are to be printed separately and integrated into a complete print;

and

making the preview images to print of these two modes parallel one another<u>,</u>

<u>wherein said preview images are not overlapped with each other on a preview display</u>

<u>screen</u>.

22. (Withdrawn) A computer-readable medium having a program for displaying

preview images to print recorded thereon, said program outputting user-chosen

preview images to print on a display, said computer-readable medium comprising:

computer-executable instructions for implementing a function of showing

progress of preview generation, by which the computer outputs the progress of

generating a preview image to print in predetermined steps on a display as the preview

images to print are processed for output.

23. (Withdrawn) A computer-readable medium having a program for displaying

preview images to print recorded thereon, said program outputting user-chosen

preview images to print on a display, said computer-readable medium including:

computer-executable instructions for implementing a s top function that is

activated by a unit for inputting a command to stop preview, allowing the user to input

a command to stop the processing for outputting the preview images to print, by which

the computer aborts genera ting the preview images to print when the user inputs a

command to s top preview by using the unit for inputting a command to stop preview.

24. (Canceled)

25. (Currently Amended) An apparatus for displaying preview images to print that

outputs preview images to print on a display from print job data supplied from an

application or an operating system and spooled in a spool file, comprising:

a first image generating unit for reading said spool file and outputting a page

view of a unit page to print within a bounded area as a first preview image;

a second image generating unit for reading said spool file and outputting a

composite view of an object image to print within a bounded area as a second preview

image, said composite view consisting of a plurality of element pages which are to be

printed separately and integrated into a complete print;

a third image generating unit for reading said spool file and outputting an

enlarged view of a selected spot on said page view output within a bounded area as a

third preview image; and

a spot view control unit for marking a page corresponding to the unit page view

output by said first image generating unit and a spot corresponding to the enlarged

spot view output by said third image generating unit on ~~a composite~~ the second

preview image ~~to print~~, output by said second image generating unit and marking a

spot corresponding to the enlarged spot view output by said third image generating

unit on ~~a page~~ the first preview image ~~to print~~, output by said first image generating unit,

wherein said preview images are not overlapped with each other on a preview display

screen.

26. (Currently Amended) An apparatus for displaying preview images to print that

outputs preview images to print on a display from print job data supplied from an

application or an operating system and spooled in a spool file, comprising:

a first image generating unit for reading said spool file and outputting a page

view of a unit page to print within a bounded area as a first preview image;

a second image generating unit for reading said spool file and outputting a

composite view of an object image to print within a bounded area as a second preview

image, said composite view consisting of a plurality of element pages which are to be

printed separately and integrated into a complete print; and

a spot view control unit for marking a page corresponding to the unit page view

output by said first image generating unit on ~~a composite~~ the second preview image ~~to~~

~~print~~, output by said second image generating unit, wherein said preview images are

not overlapped with each other on a preview display screen.